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(71) Applicant (for all designated States except US): LICA PHARMACEUTICALS A/S [DK/DK]; Fruebjergvej 3, DK-2100 Copenhagen Ø (DK).

(72) Inventor; and

(75) Inventor/Applicant (for US only): NIELSEN, Simon, Feldbæk [DK/DK]; Åfaldet 72, DK-2730 Herlev (DK).

(74) Agent: INSPICOS A/S; Bøge Allé 5, P.O. Box 45, DK-2970 Hørsholm (DK).

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(54) Title: QUATERNARY AMINO-FUNCTIONAL CHALCONES

(57) Abstract: The present invention provides novel quaternary amino-functional chalcone derivatives and analogues exhibiting interesting antibacterial activity. The compounds have the general formula $(Y^1)_m-Ar^1(X^1)-C(=O)Var^2(X^2)-(Y^2)_p$ (I), wherein V designates -CH₂-CH₂-, -CH=CH- or -C=C; Ar¹ and Ar² independently are aryl and heteroaryl; m=0, 2, p=0, 1, 2, m+p>0; each Y¹ and Y² independently is -Z-N⁺(R¹)(R²)R⁴ Q⁻(A); -NR³-Z-N⁺(R¹)(R²)R⁴ Q⁻ (B), or O-Z-N⁺(R¹)(R²)R⁴ Q⁻ (C), R¹, R², R³, R⁴, X¹, X² are substituents, and Q⁻ is an anion. The present invention also relates to the compounds for use as pharmaceutically active agents, in particular against bacterial infections (such as Gram-negative and Gram-positive bacteria, including antibiotic-sensitive or resistant strains), and in the medical treatment of bacterial infections in mammals.